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09/581,885	09/14/2000	Jukka Jakara	3229-4003	7120
27123	7590	05/03/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			ALVO, MARC S	
			ART UNIT	PAPER NUMBER
			1731	

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/581,885
Filing Date: September 14, 2000
Appellant(s): JÄKÄRÄ et al

Heather Lynn Champion
For Appellant

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GROUP 1700

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 15, 2005.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

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(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The amendment filed January 15, 2005 has been entered.

(5) *Summary of Claimed Subject Matter*

The summary of the claimed subject matter contained in the brief is correct.

(6) *Grounds of Rejection to be Reviewed on Appeal*

The appellant's statement of the grounds of rejection is correct.

The rejection of claims 9, 18 and 19 stand or fall together as Applicant has a single heading for all the rejections in the arguments of the brief.

(7) *Claims Appendix*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) *Evidence Relied Upon*

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 9, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 480 469 with or without LINSTEN et al (6,007,678) with or without JOACHIMIDES et al (5,129,987) with or without ALI (5,656,130), and further in view of SHELDON (2,822,236).

EP 0 480 469 teaches a method of bleaching a chemical pulp (organosolv and kraft, see page 5) in a plurality of different steps wherein at least one bleach solution contains a peracid e.g. peracetic acid (page 6, lines 20-25) where the peracid stage is the last step (page 6, lines 48-50) to obtain a pulp brightness of 86% ISO in the bleaching sequence (O-Z-P_A). See EP 0 480 469, page 6, lines 9-11 for a peracid pH of 2 to about 6. Obviously in the O-Z-P_A sequence the kappa number would be 2.0 after the O-Z-stages and prior to the P_A stage as such is taught by EP 0 480 469 in Example 22, see Table. If the use of such a low kappa number prior to the peracid stage of EP 0 480 469, then LINSTEN et al teaches peracid bleaching of chemical pulps having a kappa number as low as 2.0 (column 5, lines 24-30). It would have been obviously that the post-bleaching stage of EP 0 480 469 could use a chemical pulp having a kappa number as low as 2.0 as taught by LINSTEN et al. The instant specification defines "post bleaching" as "the last step of the bleaching process"; see instant specification, page 3, lines 11-16. This does not define over the final per compound bleaching stage of EP 0 480 469. See EP 0 480 469, page 6, lines 32-36, for using 0.5% to about 4% (w/w) peroxy compound on oven dry pulp. See EP 0 480 469, page 7, lines 29-30, for using magnesium sulfate in the peracid bleaching stage. The purpose of bleaching is to turn colorless the chromophoric groups in the pulp, besides the peracid of EP 0 480 469 would act on the pulp in the same manner as the claimed peracid as it is the

same chemical reacting with the same starting material, e.g. chemical pulp. If necessary, JOACHIMIDES et al teaches (column 3, lines 18-21) that the last bleach stage is performed in a post bleaching tower. It would have been obvious to perform the last bleach stage of in a post bleaching tower as taught by JOACHIMIDES et al. If necessary, ALI teaches that in multi-stage bleach sequences inorganic peroxy acid salts could further brighten (GEB values 85 to 93) the bleached (column 12, lines 36-41 and column 13, lines 28-31) by converting any of the remaining chromophoric groups to colorless derivatives. It would have been obvious to one of ordinary skill in the art that the final per compound bleaching stage of EP 0 480 469 would be turning chromophoric groups in the pulp to colorless derivatives as such is taught by ALI. Claims 9, 18 and 19, call for separate bleachings in a bleaching plant, and a post-bleaching step outside the bleach plant. SHELDON et al teaches that peroxide, one of the disclosed alternative per compound bleaching agents of EP 0 480 469, could be used to bleach bleached chemical pulp, before during or after the drying the pulp just prior to storage or shipment. It would have been obvious to have the final post bleaching stage of EP 0 480 469 outside the bleach plant, e.g. during or after drying or just prior to storage or shipping, in the manner taught by SHELDON.

(10) Response to Argument

Appellant's arguments that the instant process has the final bleaching "outside" the bleach plant are not convincing. The sequence used by Applicant does not differ from the sequence used by EP 0 480 469. Unexpected results have not been demonstrated for bleaching "outside" the bleach plant. Besides, Applicant's post-bleaching step, does not define over conventional bleaching, e.g. the last bleach stage of EP 0 480 469, and can be considered as part

of the bleach plant as bleaching occurs. The instant specification on page 3, lines 12-16, states "The bleaching method according to the invention, which solves the problems mentioned above, is characterized in that the peracid is used in post-bleaching which is the last step of the bleaching process." Thus the "post -bleaching can be part of the bleaching process, e.g. part of the bleach plant. It is noted that Applicant has not claimed a time period between the last bleaching stage of the bleach plant and the post-bleaching outside the bleach plant and thus the claimed "post-bleaching could immediately follow the other bleach steps.

Appellant further argues that the instant process performs the post-bleaching in a storage tower, flow pipe and/or paper mill. A bleach tower as a storage tower are structuarally the same. Both are pulp holding vessels. The difference is that bleaching occurs in a bleach vessel, while a storage vessel is conventionally used to hold pulp between process steps. A storage vessel which is used for bleaching is no longer only a storage vessel, but can be referred to as a bleach vessel as bleaching agent is added to the vessel. Thus the claimed post-bleaching storage tower would not patently differentiate over the post-bleaching tower (14) of JOCHIDES et al.

The argument that the instant specification obtains unexpectedly improved brightness with a smaller drop in viscosity when peracetic acid is used with magnesium sulfate is not convincing as such would have been expected from the teachings of EP 0 480 469. As set forth in the rejection above EP 0 480 469 teaches an O-Z-P_A bleach sequence wherein the peracetic acid bleach stage is the final bleach step or post-bleaching step. Such a sequence obtains a pulp brightness of 86% ISO, see EP 0 480 469, page 6, lines 48-50. EP 0 480 469 further teaches using magnesium sulfate as a viscosity protector. It would have been obvious to obtain high brightness and a small drop in viscosity when EP 0 480 469 uses the viscosity protector

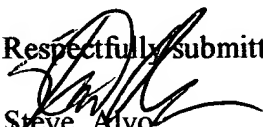
Application/Control Number:
09/581,885
Art Unit: 1731

Page 6

(magnesium sulfate) in the bleaching sequence. Applicant has not compared the instant process to the closest prior art, e. g. the process of EP 0 480 469.

The argument that SHELDON is an integrated part of the bleaching proper is not convincing as SHELDON teaches that the pulp bleached, before during or after the drying the pulp just prior to storage or shipment. Clearly the pulp after final drying and just prior to shipping is well after the bleach plant.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Steve Aivo
Primary Examiner
Art Unit 1731

Msa
1 May 2005
Conferees:
Patrick Ryan
Steve Griffin